



2016 Capital Bikeshare Member Survey Report



Prepared by:
LDA Consulting
Washington, DC 20015
(202) 548-0205

February 24, 2017

EXECUTIVE SUMMARY

Overview

This report presents the results of the November 2016 Capital Bikeshare Customer Use and Satisfaction Survey conducted for the Capital Bikeshare service (Capital Bikeshare), a service jointly owned and sponsored by the District of Columbia, Arlington County, VA, the City of Alexandria, VA, Montgomery County, MD, and Fairfax County, VA. The service, which is operated by Motivate International, Inc., offers short-term use of more than 3,500 bicycles to registered members and day-pass users at over 400 stations in the District of Columbia, Arlington County (VA), the City of Alexandria (VA), Fairfax County (VA), and Montgomery County (MD).

Users register for an annual or 30-day membership and receive a Capital Bikeshare key that allows them to unlock a bike at any station. Users can return the bike to the same station or to any other station in the network, facilitating both return and one-way trips.

Capital Bikeshare's management was interested in examining users' experience with the service and bikeshare's impact on users' travel patterns. The survey was conducted for the following primary purposes; to explore:

- Demographic characteristics of Capital Bikeshare users
- Characteristics of Capital Bikeshare trips
- Travel changes made in response to Capital Bikeshare availability
- Users' satisfaction with Capital Bikeshare features

In October 2016 Capital Bikeshare opened the survey for members to complete. Capital Bikeshare staff announced the survey through the monthly newsletter and sent an email to the approximately 31,700 current annual/30-day members and 35,100 former members. The email informed them of the online survey and provided the link to the survey website. To increase the response rate, Capital Bikeshare sent a reminder email to all members. During the approximately one-month period that the survey website was active, 5,564 current and 544 former members completed the survey. An additional 287 current members completed a sufficient portion of the survey that their partial surveys were retained. These interviews represented response rates of 18% for current members and 2% for former members.

Key Conclusions

Several overall conclusions, generally related to the personal travel benefits and travel impacts of bikesharing rise to the top of importance.

- **Capital Bikeshare (CB) members benefit through easier, faster access to destinations and access to a wider range of destinations** – Nine in ten respondents said they joined Capital Bikeshare to get around more easily and quickly. And when asked about the primary reason for using bikeshare for the most recent trip, 56% of respondent chose bikeshare because it was a faster or easier way to reach their destination. About two in ten named an issue related to travel to the particular destination; 8% chose bikeshare because it was too far to walk to the destination, 5% said parking was limited or expensive at that destination, and 4% said public transportation was either not available or inconvenient to that destination at that time of day. For these respondents, bikeshare expanded their destination options.
- **Capital Bikeshare makes travel fun and more flexible** – More than half of bikeshare members said they were motivated to join Capital Bikeshare to have access to a one-way travel option (57%) or to have access to another form of transportation (54%). And 69% joined simply because biking is a fun way to travel. The opportunity to make one-way trips by bikeshare was particularly valuable to many members, who had a wealth of travel options – bikeshare, transit, taxi, walking, carshare – that they could choose “in the moment,” increasing their travel flexibility.

- **The “transit access” role that bikeshare offers expands travel range even further** – Seven in ten (71%) respondents used Capital Bikeshare at least occasionally to access a bus, Metrorail, or commuter rail; 18% used bikeshare six or more times per month for this purpose.
- **Bikeshare serves both work-related and personal travel needs** – Two-thirds (65%) of respondents said commuting to work was a primary bikeshare purpose. Bikeshare use also was common for non-work travel; 55% of respondents reported that social/entertainment was a primary bikeshare trip purpose and about four in ten used bikeshare for personal appointments (42%) and shopping/errands (40%). One-third (33%) used bikeshare to go to a restaurant/out for a meal.
- **Bikeshare allows members to get around without the cost and hassle of car ownership and driving** – More than four in ten (44%) Capital Bikeshare members didn’t have access to a car or other personal vehicle. And 20% of respondents said they reduced their driving miles since joining Capital Bikeshare. These respondents each reduced an average of 1,565 annual driving miles, equating to about 9.9 million fewer driving miles by the 31,700 bikeshare members (in November 2016).



- **Bikeshare members shift some trips to bicycle from other travel modes** – Eighty-two percent of respondents increased their use of bicycling since joining Capital Bikeshare and 49% said they ride a bike much more often. By comparison, respondents reduced use of all other transportation modes; 54% drove a personal motor vehicle less often, 65% used a taxi less often, and 60% reduced their use of Uber/Lyft ride-hailing services. Nearly six in ten (58%) rode Metrorail less often, 55% rode a bus less often, and 35% decreased their use of walking, suggesting some shifts from each of these modes to biking.
- **Bikeshare members who used Capital Bikeshare frequently reported the greatest reduction in use of non-bicycle modes** – For example, 73% of respondents who made 11 or more CB trips in the past month reduced their use of Metrorail, compared with 46% of respondents who made between one and five CB trips in the past month, a net additional reduction of 27 percentage points for frequent riders. The results were similar for other non-bike mode groups.
- **Capital Bikeshare members save on personal travel cost** – Respondents reported saving an average of \$631 per year (\$12.13 per week) on personal transportation costs as a result of their bikeshare use. Across the estimated 31,700 bikeshare members in November 2016, the collective annual saving was nearly \$20 million.
- **Respondents give high marks to most bikeshare features** – At least half of all respondents gave ratings of 4 or 5 (Excellent) to each of 15 bikeshare features. At least eight in ten respondents gave high ratings for online registration, key activation, Spotcycle app, and the online station map. They also rated several station and bike features highly; 85% gave a 4 or 5 rating for condition of stations and appearance of bikes. Respondents were less satisfied with nighttime lighting at stations, availability of bikes at docks, and availability of open docks when the respondent was returning a bike; about half of respondents rated these features as a 4 or 5.

- **Nine in ten CB members would increase their bikeshare use if bikeshare service was expanded and/or other service enhancements were made** – Fifty-five percent of respondents said they would ride more often if more docks/bikes were added to existing stations, indicating unmet demand for rides even within the current service area. Almost four in ten (39%) respondents would use bikeshare more if new stations were installed in residential neighborhoods, perhaps indicating a desire for greater access to bikeshare for short trips within a home neighborhood. Respondents also expressed significant interest in several non-expansion service enhancements. Nearly four in ten (38%) said they would use bikeshare more often if they could lock a bike near the stations when the station dock was full.

Bikeshare Users Demographic and Membership Characteristics

Bikeshare users did not mirror the adult population of the Washington metropolitan region – More than nine in ten survey respondents were employed, while the U.S. Census reports that only about seven in ten adults in the Washington region are employed. But bikeshare survey respondents also differed from the general employed population. Compared with all commuters in the region, they were, on average, considerably younger, more likely to be male, Caucasian, and slightly less affluent.

Bikeshare visibility and referrals were important marketing tools for Capital Bikeshare – Respondents were most likely to have learned about Capital Bikeshare by seeing a bikeshare station or bike (47%) or through a referral from a friend or family member (25%). These two sources have become more important as the service has matured; 51% of members who joined CB in 2015 or 2016 mentioned seeing a station or bike, compared with only 20% who joined in 2010. Referrals also have grown, with 28% of 2015-2016 new members mentioning this source, compared with 9% of members who joined in 2010.



The primary motivations for joining Capital Bikeshare were for greater ease of travel, enjoyment of biking, and one-way travel flexibility – Eighty-nine percent of respondents said they were motivated by the ability to get around more easily or more quickly. Seven in ten (69%) joined Capital Bikeshare because they liked to bike. And more than half said they joined to have a new or one-way travel option (57%) or access to another form of transportation (54%). More than half cited a desire for exercise (56%) or a desire to save money on transportation (53%).

Half of the current bikeshare members have been participating in the service for two or more years – Half (50%) of the respondents surveyed said they joined Capital Bikeshare before 2015 and nearly one-quarter joined before 2013.

Bikeshare Use Characteristics

Capital Bikeshare use was distributed evenly across frequency categories, showing demand for the service at many use levels – About 21% of respondents had made fewer than three bikeshare trips in the month before the survey, 21% made between three and five trips, and 19% made between six and ten trips. Four in ten members were frequent users, making 11 or more trips in the past month. Respondents made an average of 14 trips in the past month, about the same as the 13 trips per month average frequency noted in the 2014 bikeshare survey.

Nearly all members said they used bikeshare for personal/non-commute trips – Ninety-three percent of respondents said their top three bikeshare uses included non-commute trips and one-third of members used bikeshare solely for non-commute purposes. Top trip purposes included social/entertainment trips (55%), personal appointments (42%), shopping/errands (40%), and restaurants/meals (33%). Two in ten respondents said exercise/recreation trips were a top bikeshare trip purpose.

A large share of members used bikeshare for their trip to work – Commuting was an important bikeshare purpose also; 65% of respondents said commuting to or from work was a top bikeshare trip purpose. One in twenty members used bikeshare to get to or from school. Seven percent of respondents used bikeshare only for getting to or from work or school

Capital Bikeshare also served as a feeder service to reach transit stops – Seven in ten (71%) respondents said they used Capital Bikeshare at least “occasionally” to access a bus stop, a Metrorail station, or a commuter rail station. Nearly two in ten (18%) used bikeshare for this purpose at least six times per month. Frequent bikeshare users reported more frequent use of bikeshare to access transit. Three-quarters (76%) of respondents who made six or more bikeshare trips in the past month used bikeshare to access transit, compared with 64% of respondents who used bikeshare one to five times in the past month.



Bikeshare was the choice for most recent trips because it was the fastest and easier way to travel – Fifty-six percent of respondents chose bikeshare for the recent trip because it was a fastest or easiest way to reach their destination. Fifteen percent chose bikeshare to get exercise. About one in ten respondents said bikeshare was cheaper than other travel options (7%) or that the destination was too far way to walk (8%). One in ten respondents used bikeshare because the destination was difficult or inconvenient to reach by other types of transportation.

One-third (35%) of respondents would have ridden a bus or train if Capital Bikeshare had not been available for the most recent trip – Four in

ten (39%) would have walked to their destination. Only 5% of respondents would have driven or ridden in a personal vehicle, but since 44% of respondents did not have a personal vehicle regularly available, this would not be an easy option for many. Fourteen percent would have used Uber/Lyft and 2% would have used a taxi. Three percent would have ridden a personal bike.

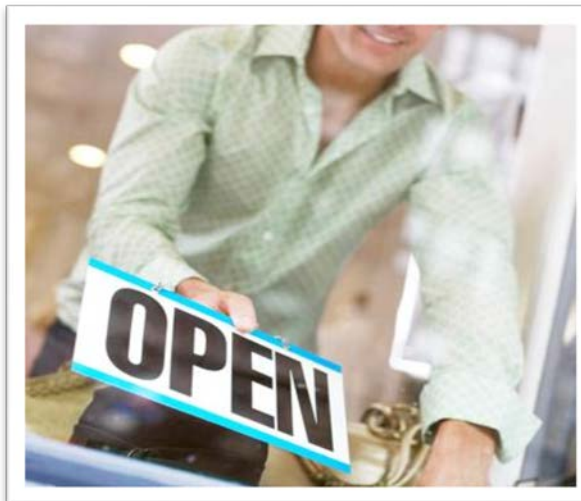
Nearly all respondents walked to where they picked up the bike for their most recent trip – Eighty-nine percent of respondents said they walked to the bikeshare station. About one in ten (9%) rode a bus or train. Two percent reached the bikeshare station by the Uber or Lyft ride-hailing service.

Use of Capital Bikeshare to “Induce” Trips

In the past month, 44% of respondents used bikeshare to make at least one trip they would not have made (“induced” trips) if bikeshare had not been available – Frequent bikeshare users were more likely to reported making induced trips. Frequent users also made a higher number of induced trips, but the induced trips represented a smaller proportion of their overall bikeshare trips. Among members who made at least 11 bikeshare trips in the past month, induced trips represented about one in ten of their total trips. Among members who made fewer than six bikeshare trips, induced trips accounted for one-quarter of their trips.

Capital Bikeshare access made establishments more attractive to Bikeshare members – More than eight in ten respondents said they were either much more likely (32%) or somewhat more likely (48%) to patronize an establishment that was accessible by Capital Bikeshare.

Respondents who gave high ratings for the value of bikeshare access made induced trips at a much higher rate than did those who gave lower ratings – Two-thirds (63%) of respondents who said they were much more likely to patronize a Capital Bikeshare-accessible establishment made an induced trip in the past month, compared with 41% who said they were somewhat more likely, and only 26% of those who said they were not more likely to patronize the establishment. This suggests the decision to make some, and perhaps many, induced trips was motivated by the establishments' accessibility.



Change in Mode Use Since Joining Capital Bikeshare

Bikeshare members substantially increased their bicycle use since they joined Capital Bikeshare – More than eight in ten respondents said they bicycled more often since joining; 33% said they bicycled “somewhat more often” and 49% bicycled “much more often.” About one-third of respondents said they had increased their bikeshare use due to the WMATA SafeTrack track maintenance program, which reduced Metrorail hours of service and added travel time to Metrorail trips.

Bikeshare members substantially reduced their car, ride-hailing, and taxi use since they joined Capital Bikeshare – More than half (55%) of all survey respondents drove a car less often. Two-thirds (65%) said they used a taxi less often and 60% reduced use of ride-hailing services such as Uber/Lyft (60%) since they joined Capital Bikeshare. Bikeshare members also substantially reduced their use of public transit; 58% rode Metrorail less often and 55% rode a bus less often. One-third (35%) of respondents decreased their walking trips.

Bikeshare members who used Capital Bikeshare frequently reported the greatest reduction in use of non-bicycle modes – For example, 73% of respondents who made 20 or more bikeshare trips in the past month said they reduced their use of Metrorail, compared with 46% of respondents who made fewer than six CB trips, a net additional reduction of 27 percentage points. The results were similar for other non-bike mode groups; the share of respondents who reduced use of a non-biking mode since they joined Capital Bikeshare increased steadily as their bikeshare use increased. The change was most pronounced for Metrorail and bus (net differences of 27 points and 30 points, respectively). The differences were less dramatic for use of walking (17 points), driving a car (16 points), taxi (16 points), and Uber/Lyft (14 points), suggesting that bikeshare was substituted less often for these modes.



Two in ten respondents reduced their annual driving miles – Respondent also were asked approximately how many miles they drove per year in the Washington region at the time of the survey and how many miles they drove in the year before they joined Capital Bikeshare. Twenty percent reduced their driving miles; 9% reduced driving by more than 1,000 miles.

Capital Bikeshare members reduced 9.9 million driving miles annually – On average, survey respondents who reported both a current and pre-Capital Bikeshare mileage drove about 3,995 miles per year before joining Capital Bikeshare and 2,430 miles per year at the time of the survey, for a reduction of about 1,565 miles annually. When these survey results were applied to the estimated 31,700 bikeshare member population in November 2016, the month in which the survey was conducted, the results were as follows:

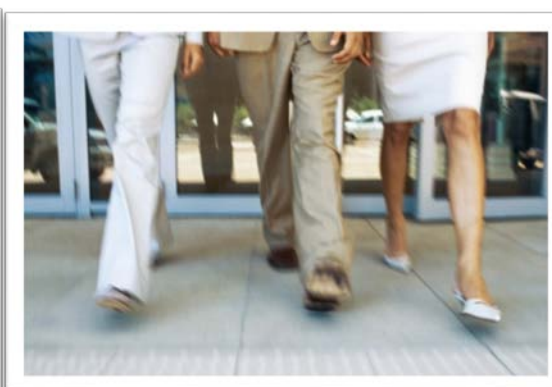
• Number of Capital Bikeshare members (November 2016)	31,667	
• Percentage of respondents who reduced driving miles	20%	
• Estimated annual VMT reduced per member	1,565	
• Estimated total annual VMT reduced	9,912,000	annual miles (rounded)

On average, each Capital Bikeshare member saved \$631 per year on personal travel cost – More than three-quarters (77%) of respondents said they saved money on weekly travel costs by using Capital Bikeshare. About six in ten said they saved between \$1 and \$20 per week, 13% saved between \$21 and \$40, and 4% saved more than \$40. Across all respondents, the average weekly saving would be \$12.13, or about \$631 annually. Collectively, the estimated 31,700 Capital Bikeshare members in November 2016 were saving nearly \$20 million per year:

• Number of bikeshare members (November 2014)	31,667	
• Estimated annual cost saving per member	\$631	
• Estimated total annual cost saving	\$19,982,000	annually (rounded)

Bikeshare Members' Commute Travel Patterns

Bikeshare members traveled an average of 6.4 miles to work one-way, well under the average 17.3 miles distance of commuters region-wide – Two in ten bikeshare respondents traveled fewer than two miles to work and 59% traveled fewer than five miles. By contrast, only 17% of all regional commuters traveled fewer than five miles.



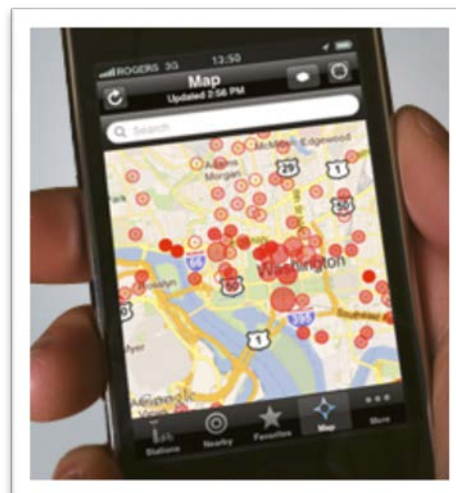
Capital Bikeshare members drove alone to work much less than did commuters region-wide – The overwhelming majority of employed respondents used a non-drive-alone mode of travel to get to work: 40% of Capital Bikeshare members primarily used public transit to get to work, 29% primarily biked to work, and 13% commuted by walking. Only 13% primarily drove alone to work. Bike commute use was particularly high for members who lived close to work; 31% of bikeshare members who traveled less than two miles to work bicycled to work and 44% of members who commuted between 2.0 and 4.9 miles used primarily commuted by bicycle.

Satisfaction with Capital Bikeshare

Respondents gave generally high marks to bikeshare features –

At least half of respondent gave ratings of 4 or 5 (Excellent) to each of the 15 features presented in the survey. They gave particularly high ratings for registration and customer support features. Each of the five features in this category was rated as a 4 or 5 by at least three-quarters of respondents. And nearly nine in ten gave high ratings for online registration (89%) and key activation (88%).

About eight in ten respondents also rated the condition of stations (85%) and appearance of bicycles (81%) highly. Respondents were less satisfied with other station and bike features. About half of respondents gave high ratings to nighttime lighting at stations (51%), availability of bikes at docks (51%), and availability of open docks when the respondent was returning a bike (49%).



Some groups of respondents gave higher ratings for service features – Respondents who joined early in the service (2010-2012) generally gave higher ratings for service features. Older respondents (45 year or older) and white respondents also gave higher ratings for some features. District of Columbia members and frequent bikeshare users gave lower ratings for several features, in particular the availability of bikes at docks and open docks to return bikes.

Nine in ten CB members would increase their bikeshare use if bikeshare service was expanded and/or other service enhancements were made – Fifty-five percent of respondents said they would ride more often if more docks/bikes were added to existing stations, indicating unmet demand for rides even within the current service area. About four in ten (39%) respondents would use bikeshare more if new stations were installed in residential neighborhoods, perhaps indicating a desire for greater access to bikeshare for short trips within a home neighborhood. Respondents also expressed significant interest in several non-expansion service enhancements. Nearly four in ten (38%) said they would use bikeshare more often if they could lock a bike near the stations when the station dock was full.

Both frequent and infrequent riders cited service improvements that would increase their bikeshare use – Frequent riders were much more likely to be motivated by more docks/bikes at existing stations; 73% of respondents who made 30 or more trips in the past month and two-thirds who made between 11 and 29 trips said this would motivate them to make more bikeshare trips. Infrequent riders expressed greater interest in two non-expansion changes. More than one-quarter (27%) of respondents who made fewer than six trips in the past month said they would be motivated by a longer free-use period. And one-quarter of members who rode between one and five times in the past month would be motivated by combining the SmarTrip card with their bikeshare key.